In the United States Court of Federal Claims

OFFICE OF SPECIAL MASTERS
No. 19-0544V

EDLIN M. CRAWFORD, Petitioner, v. SECRETARY OF HEALTH AND HUMAN SERVICES, Respondent.	Chief Special Master Corcoran Filed: February 5, 2024

William E. Cochran, Jr., Black McLaren, et al., PC, Memphis, TN, for Petitioner.

Sarah Christina Duncan, U.S. Department of Justice, Washington, DC, for Respondent.

RULING ON ENTITLEMENT AND DECISION AWARDING DAMAGES[1]

On April 12, 2019, Edlin M. Crawford filed a petition for compensation under the National Vaccine Injury Compensation Program, 42 U.S.C. §300aa-10, *et seq.*[2] (the "Vaccine Act"). Petitioner alleged that as a result of an influenza ("flu") vaccine she received on September 4, 2017, she suffered a shoulder injury related to vaccine administration ("SIRVA") as defined by the Vaccine Injury Table (the "Table"). Petition (ECF No. 1) at Preamble. The case was assigned to the Special Processing Unit ("SPU") of the Office of Special Masters.

[1] Because this ruling and decision contains a reasoned explanation for the action in this case, I am required to post it on the United States Court of Federal Claims' website in accordance with the E-Government Act of 2002. 44 U.S.C. § 3501 note (2012) (Federal Management and Promotion of Electronic Government Services). **This means this Ruling/Decision will be available to anyone with access to the internet.** In accordance with Vaccine Rule 18(b), Petitioner has 14 days to identify and move to redact medical or other information, the disclosure of which would constitute an unwarranted invasion of privacy. If, upon review, I agree that the identified material fits within this definition, I will redact such material from public access.

[2] National Childhood Vaccine Injury Act of 1986, Pub. L. No. 99-660, 100 Stat. 3755. Hereinafter, for ease of citation, all section references to the Vaccine Act will be to the pertinent subparagraph of 42 U.S.C. § 300aa (2012).

For the reasons discussed below, I find that Petitioner is entitled to compensation, and I award damages in the amount of $105,000.00, representing compensation for her actual pain and suffering, plus $45.57 for her unreimbursed medical expenses, for a total of **$105,045.57.**

I. Relevant Procedural History

The claim was initiated in the spring of 2019, and the relevant medical records were filed thereafter. ECF Nos. 1-13. Approximately five months later, on May 8, 2020, Respondent filed a status report stating that he had reviewed the case and was not interested in settlement, proposing instead to file his Rule 4(c) Report. ECF No. 17. In it, Respondent argued that Petitioner had failed to demonstrate that her shoulder pain began within 48 hours of vaccination, that she appeared to have developed bilateral shoulder pain, and that Petitioner's treating physicians identified other causes of her shoulder pain, including osteoarthritis. Respondent's Report at 5-7. ECF No. 18.

I ordered Petitioner to file an expert report to address Respondent's claims. ECF No. 20. In response, Petitioner filed an expert report prepared by board-certified orthopedic surgeon, Dr. Uma Srikumaran, who opined that Ms. Crawford's shoulder injury was a result of an adverse vaccine reaction to her left shoulder. Ex. 18 at 10. After reviewing Dr. Srikumaran's report, Respondent stated that he intended to file a responsive expert report. ECF No. 22.

On March 9, 2021, Respondent filed an expert report prepared by Dr. Geoffrey Abrams, also a board-certified orthopedic surgeon. Exs. A-B. Dr. Abrams opined that the flu vaccine was not the cause of Petitioner's shoulder and arm pain. Instead, Dr. Abrams opined that Ms. Crawford's four-month delay in reporting her shoulder injury would not meet the onset requirements for a SIRVA Table injury, that Ms. Crawford had a history of diabetes which predisposed her to independent, non-SIRVA development of adhesive capsulitis, and that she had additional medical conditions that would explain the development of her shoulder pain. Ex. A at 4.

Petitioner filed a supplemental expert report from Dr. Srikumaran disagreeing that the four-month delay in Ms. Crawford reporting her shoulder injury invalidated her SIRVA claim. Ex. 33 at 2, ECF No. 28. Dr. Srikumaran further reiterated that Ms. Crawford's adhesive capsulitis was more likely due to her shoulder bursitis as a result of vaccination rather than a spontaneous development of adhesive capsulitis due to having diabetes. *Id*. Likewise, Dr. Srikumaran stated that the vaccination was a more likely trigger to the inflammation in her shoulder rather than a spontaneous start of symptoms due to chronic

conditions of the shoulder. *Id*. Dr. Abrams filed an additional supplemental reiterating his prior opinions. Ex. C.

Thereafter, the parties elected to brief the issue of entitlement and damages. ECF No. 36. The parties have now filed their respective briefs and this case is ready for adjudication. Petitioner's Motion for Ruling on the Record ("Mot."), ECF No. 36; Respondent's Response ("Opp."), ECF No. 37; Petitioner's Reply ("Reply"), ECF No. 40.

II. Relevant Medical History

1. Medical Records

Ms. Crawford (age 71 and retired) received a flu vaccine in her left shoulder on September 4, 2017, at a Walmart Pharmacy located in Fairfield, California. Ex. 2 at 1. Her medical history included chronic cough, type II diabetes mellitus, primary hypertension, gastroesophageal reflux disease, hyperlipidemia, and allergic rhinitis. *See e.g.*, Ex. 3 at 8-11. She had no history of left shoulder pain or injury.

Ms. Crawford has stated in her affidavit that within 24 hours of vaccination, she experienced pain in her left shoulder akin to "normal soreness with vaccination." Ex. 1 at 1. But within two to three days after vaccination, "the pain in my left arm began getting worse. I went back to Walmart during the first part of October to discuss the issue with the pharmacist. The Walmart pharmacist advised me to see my doctor. There was a fire at my house on October 14, 2017, that damaged my fence, car, and the side of my house. I was planning to go on a cruise for about one week beginning October 21, 2017, so I decided to make an appointment for my shoulder when I returned home. However, when I returned home from the cruise, I had a bad cough. I sought treatment for the cough before seeking treatment for my left shoulder… I also traveled across the country from November 22-30, 2017, for a school reunion. Given the fire, my travels, the holidays, my bad cough, and my belief that the shoulder pain would go away, I did not call to make an appointment for my shoulder until December 29, 2017." *Id*.

On September 18, 2017, two weeks after vaccination, Ms. Crawford presented to her primary care provider ("PCP") for a routine diabetes follow-up. Ex. 3 at 115-18. She reported that she was going to the gym, using the treadmill, and lifting weights two to three times per week. *Id.* at 115. She did not report shoulder pain (pain severity noted as 0/10, *Id*. at 115), and the review of systems was negative. *Id.* The exam included a musculoskeletal evaluation, and the PCP noted that mobility was not limited. *Id.*

Between November 1 and December 20, 2017, Ms. Crawford presented to medical providers on four occasions regarding a chronic, nagging cough that was ultimately

attributed to GERD. Ex. 3 at 88-112. She did not report shoulder pain at any of these visits. *Id.*

On January 2, 2018 - now three months and 29 days after vaccination - Ms. Crawford presented to her PCP at the family health clinic at Travis Air Force base for complaints of "left arm pain" and decreased range of motion. Ex. 3 at 80-87. The records states that "p[atien]t correlate[d] onset [with] [an] influenza vaccine done on [the] same side of deltoid. Denies any trauma…" *Id*. at 87. A physical examination revealed tenderness to palpation over the bursa, decreased strength, and positive signs on both the Hawkin's and Neer shoulder impingement tests. *Id*. The assessment was adhesive capsulitis of the left shoulder, and the plan was to undergo physical therapy. *Id*. An x-ray showed some arthritis and degenerative changes in the shoulder joint. Ex. 3 at 54, 82.

On January 31, 2018, Ms. Crawford underwent an initial evaluation for physical therapy ("PT"). Ex. 4 at 2. There, Ms. Crawford reported left shoulder pain and stiffness beginning in October 2017 when she had a flu shot. *Id.* at 2. Between January 31, 2018, and July 23, 2018, she attended 21 PT sessions. Ex. 4 at 2-50. At the final session on July 23, 2018, she reported minimal shoulder pain and, on exam, had good range of motion with continued mild weakness. *Id.* at 48-50. She was discharged with a home exercise plan. *Id.*

Ms. Crawford continued to present for routine medical care throughout the remainder of 2018 and into 2019 and did not report shoulder pain during this time. Ex. 3 at 65-74.

On May 29, 2019, 10 months after her last PT session (and a month after she filed her petition for compensation), Ms. Crawford returned to her PCP for complaints of left shoulder pain that "started [in] 2017 after receiving a vaccine." Ex. 7 at 17. She had regained a normal ROM, but reported frequent pain that woke her up at night. *Id.* Ms. Crawford requested imaging but did not want to return to PT. *Id.* On exam, she had tenderness to palpation over the entire shoulder joint/scapular area and deltoid as well as pain at full abduction. *Id.* at 19. An x-ray showed mild osteoarthritis of the left glenohumeral and acromioclavicular joints. *Id.* at 5. The PCP ordered an MRI. *Id.* at 20.

On June 11, 2019, Ms. Crawford underwent a left shoulder MRI which revealed "moderate supraspinatus tendinosis with a moderate grade partial-thickness articular surface tear … mild subscapularis tendinosis without a focal tear … mild biceps tendinosis and tenosynovitis … mild to moderate osteoarthritis of the acromioclavicular joint, and moderate amount of fluid in the subacromial subdeltoid bursa." Ex. 5 at 1-3. Petitioner's PCP referred her to an orthopedist. Ex. 7 at 7.

On July 17, 2019, Ms. Crawford presented to Dr. Nicolas Skordas, an orthopedist. Ex. 8 at 2-4; Ex. 9 at 6-8. She reported pain and progressive stiffness in her left shoulder, beginning in September 2017 following a flu shot. *Id.* She felt that her stiffness had greatly improved, but she still had pain at night and with overhead and behind-the-body activities, which she rated at 0-9/10. *Id.* On exam, Ms. Crawford had limited ROM but normal strength. *Id.* An x-ray was performed of her *right* shoulder, due to complaints of bilateral shoulder pain, and showed degenerative enthesopathic acromial spurring and degenerative hypertrophic changes involving the right acromioclavicular articulation. *Id.* at 3. Dr. Skordas reviewed Ms. Crawford's MRI and diagnosed her with left shoulder subacromial bursitis and rotator cuff tendinitis with resolving adhesive capsulitis. *Id.* at 6-8. She received a steroid injection in her left shoulder and was advised to use NSAIDs and ice/heat. *Id.* Dr. Skordas also referred Ms. Crawford for additional PT. *Id.*

Between August 13 and October 3, 2019, Ms. Crawford attended 12 PT sessions at Body in Balance Physical Therapy for left shoulder pain that was worse in the subdeltoid and lateral upper arm. Ex. 10. At the initial evaluation, Ms. Crawford reported that her injury started in September 2017 "after a flu shot." Ex. 10 at 6. At the time, she rated her pain at 0-4/10. Ex. 10 at 6. At her final session, Ms. Crawford indicated she planned to return to the gym and follow up with her doctor and would return if additional PT was needed. *Id.* at 34.

On October 7, 2019, Ms. Crawford returned to Dr. Skordas and reported near-complete relief of her shoulder pain for about three days after the injection in July but stated that her pain had returned. Ex. 9 at 12-13. The physical exam was unchanged. *Id.* Dr. Skordas felt that Ms. Crawford's partial thickness rotator cuff tear was "her main problem," but that she also had "a component of biceps tendinitis and some acromioclavicular joint arthrosis." *Id.* He noted that Ms. Crawford would be a candidate for surgery, which Ms. Crawford wanted to think about before deciding whether to proceed. *Id.*

On October 22, 2019, Ms. Crawford returned to Dr. Skordas and reported that her symptoms were still improved from her injection in July and that her symptoms were "only a mild nuisance at this point." Ex. 9 at 9-11. The exam showed unchanged limited ROM, but normal strength and no impingement signs. *Id.* Ms. Crawford reported that she had "very few limitations from the standpoint of her shoulder." *Id.* The impression remained the same and Dr. Skordas recommended conservative treatment. *Id.* He noted that he could administer another steroid injection in the future and advised her to follow up as needed. *Id.*

On December 24, 2019, Ms. Crawford followed up with her PCP regarding chronic left shoulder pain. Ex. 11 at 12-14. She reported that her surgeon had recommended surgery, but she wanted more imaging to see if the injury had healed. *Id.* On exam, Ms. Crawford had tenderness to palpation in the posterior aspect, pain at the ends of all range of motion, although her ROM was symmetrical, and a negative Neer's test with pain at 170 degrees. *Id.* at 13-14. The PCP noted that Ms. Crawford's HbA1c was elevated at 7.0 in November 2019, and that she needed to follow up regarding her diabetes in May. *Id*. If her HbA1c in May was not at 7.0 or lower, they would consider increasing her Metformin. *Id.* at 14. Ms. Crawford underwent another left shoulder x-ray because she "want[ed] to see the progress of the healing, to help her decide if she should proceed with surgery." *Id.* at 19. Compared to her previous x-ray in May 2019, the radiologist noted stable, mild degenerative changes in the left acromioclavicular articulation and less so in the glenohumeral articulation with no acute fracture or dislocation. *Id.*

On February 12, 2020, Ms. Crawford returned to Dr. Skordas to discuss surgery and she elected to proceed. Ex. 11 at 6-7. However, on February 17, 2020, Ms. Crawford presented to the ED for complaints of headache, fever, and body aches. Ex. 14 at 51. She tested positive for influenza A and directed to follow up with her primary care provider. *Id*. at 51-54.

On June 10, 2020, Ms. Crawford followed up with Dr. Skordas, who noted that her shoulder surgery had been scheduled for March, but was postponed due to the Covid-19 pandemic. Ex. 14 at 39. She reported that she was still having a lot of pain, mainly in the lateral aspect of her shoulder, worse with overhead activities. *Id.* Ms. Crawford wanted to reschedule her surgery. *Id.*

On June 22, 2020, Ms. Crawford underwent a left shoulder arthroscopy with debridement, subacromial decompression, distal clavicle excision, and open/subpectoral biceps tenodesis. Ex. 14 at 12-14. The preoperative diagnosis was left shoulder subacromial bursitis, biceps tendinitis, AC joint arthrosis, and possible rotator cuff tear. *Id.* The post-operative diagnosis was identical, except that Dr. Skordas found no rotator cuff tear during the surgery. *Id.* He also noted "significant bursitis within the subacromial space." *Id*. at 13. Dr. Skordas noted normal ROM during anesthesia, superior labral fraying, biceps tenosynovitis, rotator cuff tendinitis, and grade 2/3 cartilage change of the glenoid. *Id.*

On July 1, 2020, Ms. Crawford followed up with Dr. Skordas and reported that her pain was 0/10. Ex. 14 at 10. Dr. Skordas noted that Ms. Crawford was "doing well." *Id.*

Between July 15, 2020, and January 8, 2021, Ms. Crawford attended 28 post-operative PT sessions. Ex. 31 at 4. Initially, Ms. Crawford reported that her shoulder was

painful, achy, stiff, or bothersome only in the morning and that she was improving in terms of her ability to reach overhead. *Id.* at 21-31. Beginning in mid-August 2020, Ms. Crawford reported that she woke up without pain and with very little stiffness. *Id.* at 33, 38. Although she periodically complained of pain in the morning on a couple occasions, *id.* at 40-42, by September 28, 2020, Ms. Crawford reported that she was no longer having pain in the morning like she used to. *Id.* at 46. However, by November 3, 2020, Ms. Crawford reported that her shoulder had been hurting again. *Id.* at 61. In a November 23, 2020 progress report, Ms. Crawford reported that her shoulder was still "really tight," had been painful in the mornings again, and that the week prior her pain had reached 9/10. *Id.* at 67. But by December 15, 2020, Ms. Crawford reported that she was "not really having any issues with the [left] arm now." *Id.* at 70. She was discharged from PT on January 22, 2021, at which time she reported that she was "no longer thinking about the [left] shoulder" and was "able to do everything without any issues." Ex. 32 at 16.

On September 9, 2020, Ms. Crawford followed up with Dr. Skordas and reported that she overall felt her shoulder was significantly improved from before surgery. Ex. 32 at 5. On December 16, 2020, she returned to Dr. Skordas and rated her pain 2/10. *Id.* at 11. Ms. Crawford felt she had made "excellent progress with her rehabilitation," but was concerned that she still had "some pain and stiffness with active shoulder abduction." *Id.* Dr. Skordas noted that Ms. Crawford had mild subacromial bursitis on exam, but overall had progressed well after her surgery. *Id.* He administered a subacromial steroid injection in her left shoulder. *Id.*

On March 8, 2021, Ms. Crawford presented to orthopedist Neil Pathare, M.D., with a complaint of left shoulder pain "for the past few years." Ex. 34 at 3-6. She reported that her pain began after her flu shot in September 2017, which resulted in a frozen shoulder. *Id.* Ms. Crawford further reported that after surgery and several courses of PT, her ROM "greatly improved," but her pain had not. *Id.* She reported that the previous steroid injection provided moderate relief for a few months, but her pain had worsened. *Id.* On exam, Ms. Crawford had tenderness to palpation in the anterior shoulder, full active ROM with pain in the extremes of forward flexion, full strength, and positive Neer's and Hawkins signs. *Id.* An x-ray was unremarkable. *Id.* Dr. Pathare's impression was subacromial bursitis, left shoulder pain, and rotator cuff tendinosis. *Id.* Ms. Crawford received another steroid injection, was prescribed Mobic for two weeks, and was given a home exercise program. *Id.*

On April 19, 2021, Ms. Crawford returned to Dr. Pathare and reported full resolution of her pain after the injection. Ex. 34 at 7-10. On July 2, 2021, she presented to orthopedist Jay Parkin, M.D., who diagnosed her with impingement syndrome of the left shoulder. Ex. 36.6 Dr. Parkin referenced an x-ray, but no results were provided. *Id.*

He also recommended that Ms. Crawford receive another steroid injection for pain relief and "[d]iscussed frequent cortisone injections," but there is no indication that Ms. Crawford received another injection at this visit. *Id.*

On September 24, 2021, Ms. Crawford underwent an orthopedic follow up with Dr. Pathare for her left shoulder impingement syndrome and continued pain. Ex. 40 at 1. She reported that the effects of the cortisone injection that she received in March 2021 wore off one to two weeks after her last visit with Dr. Pathare in April 2021. *Id*. The physical exam of the left shoulder demonstrated tenderness to palpation anterior shoulder, FAROM with pain in the extremes of forward flexion, and rotator cuff – supra 4/5, infra 5/5, positive Neer sign and positive Hawkin's test. *Id*. at 3. The impression was subacromial bursitis of left shoulder joint, tendinosis of left rotator cuff, and impingement syndrome left shoulder. *Id*. Dr. Pathare recommended another MRI to evaluate for rotator cuff tear. Dr. Pathare administered a steroid injection into her left subacromial space with the plan to treat with Mobic, ice, activity modification and return in two months. *Id.* at 3-4.

No further records since September 2021 have been filed.

2. Affidavit Evidence

a. Ms. Crawford

Ms. Crawford submitted an affidavit, dated April 11, 2019, in support of her petition, in which she stated that she had pain in her left arm and shoulder within 24 hours of receiving the flu vaccination which she "associated with normal soreness with vaccination," but that the pain worsened within two or three days. Ex. 1 at 1. She further stated that in "the first part of October" she spoke to the Walmart pharmacist, who advised her to see her doctor. *Id.* at 1-2.

Ultimately, Ms. Crawford explained her delay in seeking treatment for her left shoulder pain as follows:

> There was a fire at my house on October 14, 2017, that damaged my fence, car and the side of my house. I was also planning to go on a cruise for about one week beginning October 21, 2017, so I decided to make an appointment for my shoulder when I returned home. However, when I returned home from the cruise, I had a bad cough. I sought treatment for the cough before seeking treatment for my left shoulder. I was more concerned about the cough and believed that the arm pain would eventually

> go away. However, I mentioned my left shoulder pain as an aside to the physicians treating me for the cough. I also traveled across the country from November 22-30, 2017, for a school reunion. Given the fire, my travels, the holidays, my bad cough, and my belief that the shoulder pain would go away, I did not call to make an appointment for my shoulder until December 29, 2017.

Id. at 2.

Ms. Crawford submitted a supplemental affidavit, dated August 4, 2021, in which she stated that she has had diabetes for 10 years and never experience joint or muscle pain prior to her flu vaccination. Ex. 37 at 1. She further stated that she has never complained of right arm or shoulder pain and does not know why she had a right shoulder x-ray, except for the purposes of comparing it to her left shoulder. *Id.* She averred that when she completed PT in July 2018, her range of motion "had gotten much better but [her] radiating pain in [her] upper arm continued." *Id.* at 2. She stated that "[t]his dull achy pain woke me up at night and made it hard to sleep" and that "this continued through my next treatment for left shoulder pain on May 29, 2019." *Id.* Ms. Crawford also averred:

> I spoke with my surgeon after my surgery, and he said that the upper arm injury was caused by some object like a needle from the shot. The surgeon said that no other problem could have caused the inflammation in the area where the needle entered and possibly the needle from the influenza vaccine was entered too high/in the wrong place.

Id.

Ms. Crawford claims that she has had chronic pain that causes her to be "irritable and snappy" and that most of the time, and that it feels like she is holding a five-pound weight in her left hand. *Id.* She further claims that she is unable to lift heavy objects or dig holes in her garden, and she has difficulty opening jars with her left hand and driving long distances. *Id.* She asserts that cortisone injections only help briefly, and the pain returns after a couple of weeks. *Id.*

b. Laurence Stahl

Ms. Crawford's husband, Laurence Stahl, submitted an affidavit dated June 19, 2020, in which he stated that Ms. Crawford received a flu shot at Walmart in September 2017, and "[w]ithin a few days of the vaccination she complained to [him] that her left shoulder was still in pain from the vaccination." Ex. 16 at 1. He further stated that Ms. Crawford returned to the Walmart pharmacist, who advised her to see a doctor, but Ms.

Crawford had felt it would resolve without treatment. *Id.* Mr. Stahl also noted the fire at their house, the cruise they took, and their cross-country travel. *Id.* at 2. He specifically stated that during the cruise in October, Ms. Crawford was still having shoulder pain and that he recalled "her lying in bed and complaining of shoulder pain and having difficulty sleeping due to the pain." *Id.*

c. Wanda Bruster

Ms. Crawford's daughter, Wanda Bruster, also submitted an affidavit, dated September 9, 2020, in which she stated that while she did not remember the date of her mother's vaccination in the late summer or fall of 2017, she remembered that her mother told her "that it had been a couple of weeks since receiving her flu shot, but the pain from her flu shot had not gone away and her left arm still hurt from where she got the vaccine." Ex. 17 at 2. Ms. Bruster, who is a licensed vocational nurse, further stated, "I have a distinct memory of her initial complaint of shoulder pain a couple of weeks after flu vaccine. My mother is not one to complain about pain, so this stands out in my mind." *Id.* Ms. Bruster averred, "[T]his was the first time that I had ever heard of someone complaining of shoulder pain from a vaccine for this length of time and I was puzzled by her situation." *Id.* She also stated that she only learned after her mother started treating her shoulder that a vaccine could cause frozen shoulder. *Id.* Ms. Bruster stated that her mother continued to complain of pain in her left arm "over the next several months." *Id.*

d. Jacqueline McBride

Ms. Crawford also submitted an affidavit, dated June 18, 2020, from her friend, Jacqueline McBride, with whom she does karaoke twice per week. Ex. 15 at 1. Ms. McBride stated that she had a conversation with Ms. Crawford after noticing that she was favoring her shoulder at karaoke. Ms. McBride stated that Ms. Crawford had told her, "that her shoulder was hurting and that it was that 'darn' shot that caused her pain." *Id.* at 1-2. Ms. McBride averred that although she does not recall when this conversation occurred, she knows it was before September 18, 2018, because she (Ms. McBride) had suffered shoulder pain after a Tdap vaccination herself on September 18, 2018, and it reminded her of Ms. Crawford's complaints. *Id.* at 2. Ms. McBride further stated that she did some research when she was experiencing symptoms, discovered that vaccinations can cause shoulder injuries, she shared this information with Ms. Crawford, who was unaware of the Vaccine Injury Compensation Program. Ms. McBride stated that she helped Petitioner locate her attorney. *Id.*

III. Expert Reports

a. Petitioner's Expert

Petitioner's expert, Dr. Uma Srikumaran, is board certified in orthopedic surgery and an associate professor in the Shoulder Division in the Department of Orthopedic Surgery at Johns Hopkins School of Medicine. Ex. 18 at 1.

Dr. Srikumaran obtained his medical degree from John Hopkins University School of Medicine in 2005. *Id*. He thereafter completed a one-year surgical internship at John Hopkins and completed his orthopedic residency in 2010 as an administrative chief resident. *Id*. He began his professional career as an attending physician at John Hopkins Hospital in 2011, which he continues to the present. *Id*. In 2017, Dr. Srikumaran became the chair of the department of orthopedic surgery at Howard County General Hospital. *Id*. He was specifically trained as a shoulder specialist at Harvard. Ex. 18 at 1. Dr. Srikumaran stated that each year, he sees approximately 2,500-3,000 patients for shoulder issues and performs between 400-500 shoulder surgeries annually. *Id*. He trains two shoulder fellows each year as well as coordinates and trains between four and six residents in shoulder surgery each year. *Id*. Dr. Srikumaran gives lectures locally, nationally, and internationally on various topics related to shoulder pathology and shoulder surgery. *Id*.

A. Dr. Srikumaran's First Expert Report

In preparing his report, Dr. Srikumaran states that he reviewed Petitioner's exhibits 1-17, Respondent's Rule 4(c) report, the petition, and he reviewed the Vaccine Injury Table for SIRVA. Ex. 18 at 2. He states that based on his review of the medical records, the scientific literature, and his experience and training, he concludes, to a reasonable degree of medical certainty, that Ms. Crawford suffered a shoulder injury related to vaccine administration (SIRVA) table injury. Dr. Srikumaran also believes that Ms. Crawford has a causation-in-fact claim. *Id*.

Dr. Srikumaran notes that Ms. Crawford had no history of left shoulder pain that is documented in her medical records prior to vaccination. Ex. 18 at 10. In considering the onset of Ms. Crawford's shoulder pain, Dr. Srikumaran states that Ms. Crawford "consistently and reliably reports immediate shoulder pain after vaccination to her varied medical providers, at various clinical settings including office and treatment visits over a long period of time…" *Id*. He thus concludes that he believes that "Ms. Crawford's pain began immediately after the injection and worsened after that time." *Id*. In reaching his conclusion, Dr. Srikumaran states that based on his experience in treating and evaluating patients at over 2,500 visits per year, "[t]he vast majority of patients do not have their pain (outside of acute traumas/emergency room situations) evaluated within 48 hours." *Id*. He

goes on to explain that most of his patients are hopeful that the pain will improve with time and wait weeks or months before seeking medical care. *Id*. Dr. Srikumaran also notes that individuals have different abilities to tolerate pain and will wait even longer than average to seek a formal evaluation, as Ms. Crawford did. *Id*. He cites to Ms. Crawford's declaration where she explains the delay in seeking treatment due to the fire at her home, travel, and a cough that required more urgent medical evaluation. *Id*.

Dr. Srikumaran next states that he disagrees with Respondent's arguments that the findings of chronic degeneration (rotator cuff tear or osteoarthritis) on Ms. Crawford's MRI, the development of opposite shoulder pain, or having diabetes as a risk factor are inconsistent with a SIRVA injury. Ex. 18 at 12. He states that chronic degenerative conditions of the shoulder are "extraordinarily common", and age related. *Id*. Regarding the notations of symptoms in Ms. Crawford's opposite (right) shoulder, Dr. Srikumaran states that in the months immediately following vaccination, all of Ms. Crawford's shoulder complaints were regarding her left shoulder. *Id*. It was only 11 months later that she began to complain of right shoulder pain, which after evaluation, only showed "typical age related degenerative changes." *Id*. He states that,

> [t]his is quite typical when patients have shoulder pain one side to over compensate with their other shoulder which can often lead to new complaints in that opposite shoulder as it takes additional demands. This is a common way patients attempt to protect their most symptomatic side and I do not find this unusual."
>
> *Id*.

Dr. Srikumaran next opines that Ms. Crawford's MRI findings support findings consistent with SIRVA, namely the rotator cuff partial tears, tendinosis, subacromial bursitis, and adhesive capsulitis. Ex. 18 at 12. He states that it is important to note that patients at Ms. Crawford's age will have imaging findings of chronic degenerative conditions such as frayed or partially torn ligaments, tendons, and osteoarthritic joints. *Id*. Dr. Srikumaran notes, however, that "the majority of these chronic conditions are asymptomatic." *Id*. His theory is that "the initiation of inflammation directly related to vaccine antigen being delivered to or near the bursa or synovium of the joint… It is this inflammation which initiates pain in previously long standing, silent, chronic degenerative conditions." *Id*. Dr. Srikumaran cites to medical literature showing the association of subdeltoid bursitis after influenza vaccination. *Id*. at 10. Citing to *Bodor et al*., he states that "a 'high' position of injection into the deltoid can lead to a subacromial injection rather than an intramuscular injection." *Id*. Dr. Srikumaran states that there is epidemiologic evidence showing that the "investigators found an increased risk of subdeltoid bursitis

after influenza vaccination additional a rate of 7.78 cases per 1 million vaccinations (this equates to an approximate incidence of 1:130,000)." *Id*.

Finally, Dr. Srikumaran states that "there are no other conditions such as neuropathies or radiculopathies that can explain Ms. Crawford's symptoms," and that the "proximate temporal relationship is consistent reported by Ms. Crawford… This timing supports a causation with the vaccination as the trigger." *Id*.

b. Respondent's Expert

Respondent submitted an expert report and curriculum vitae prepared by Dr. Geoffrey Abrams, also a board-certified orthopedic surgeon. Ex. A at 1. Dr. Abrams is board certified in orthopedic surgery with subspecialty certification in sports medicine. Ex. A at 1; Ex. B. He is an assistant professor of orthopedic surgery at Stanford University School of Medicine. *Id.* Dr. Abrams is the Director of Sports Medicine for Stanford University Varsity Athletics and Director of the Lacob Family Sports Medicine Center at Stanford University. *Id.* He also serves as the team physician for a number of professional and collegiate sports teams in the San Francisco Bay Area. *Id.* His surgical practice is focused on orthopedic conditions of the shoulder, and he has published extensively on shoulder pathology. *Id.* Dr. Abrams currently serves or has served on numerous national and international professional orthopedic surgery organization committees related to the diagnosis, treatment, and education of shoulder conditions. *Id.*

A. Dr. Abram's First Report

Dr. Abrams's expert report begins with an overview of his medical background, followed by a summary of the medical records he reviewed and an overview of the SIRVA disease process and his theory. Ex. A at 2-5. He opines that Ms. Crawford's shoulder pain is not related to SIRVA for four reasons: "1) the petitioner did not report pain in her shoulder until *nearly four months* following the injection, despite having *four visits* with her primary care provider during this intervening time, 2) she has a history of diabetes which predisposes her to independent (non-SIRVA) development of adhesive capsulitis – which she was diagnosed with following the injection, and 3) she has degenerative changes (mild arthritis) of the left shoulder which is another common cause of shoulder pain." *Id*. at 4.

The next section of his report is dedicated to discussing the onset of Ms. Crawford's shoulder pain. *Id*. Dr. Abrams notes that Ms. Crawford waited nearly four months before reporting her shoulder pain to a medical provider despite having four intervening medical visits with her primary care provider. *Id*. at 5. Dr. Abrams notes that Ms. Crawford "was even noted to be 'go(ing) to gym including treadmill, weight lifting 2-

3x per week' and have a pain severity score of 0/10." *Id*. He states that it would be "extremely unlikely" for Ms. Crawford to not discuss her shoulder pain when she stated that she was going to the gym and lifting multiple times per week. *Id*. Dr. Abrams also mentioned that there is documentation of a musculoskeletal review of symptoms which includes different states from her PCP and thus was not a "copy and paste" from the prior medical note. *Id*. Next, Dr. Abrams references the article cited by Petitioner's expert, Dr. Srikumaran, which discusses general obstacles to seeking treatment for pain. *Id*. Dr. Abrams notes that the barriers that are discussed in the article, such as difficulty communicating, and lack of medical insurance are not issues that Ms. Crawford experienced. *Id*. at 5-6. Furthermore, the individuals in those articles had sought medical attention for pain over the prior two weeks and not four months like Ms. Crawford. *Id*. at 5. Finally, Dr. Abrams noted that Ms. Crawford stated that her shoulder pain was acute and thus does not explain why she delayed seeking treatment, especially when she sought immediate care for other conditions such as her cough. *Id*. at 6. He states that he is not claiming that Ms. Crawford is misrepresenting her shoulder pain, but rather that her pain is attributable to her other conditions. *Id*. Dr. Abrams cites to a position statement by the North American Orthopedic professional society addressing their consensus view that common shoulder conditions cannot be caused by vaccine administration. *Id*. The position includes the following statement,

> There is no high-quality evidence that demonstrates that vaccination can cause or contribute to common shoulder problems such as rotator cuff tendinopathy and arthritis. There are only descriptions of patients that perceive a relationship between vaccination and their shoulder problem…

Id. at 7. Dr. Abrams notes that Ms. Crawford has rotator cuff (supraspinatus) tendinopathy and mild arthritis of her left shoulder which can be seen on her MRI. *Id*. She also has evidence of adhesive capsulitis, a slowly developing condition which she is at increased risk of due to her history of diabetes. *Id*.

The next section of Dr. Abram's report discusses how adhesive capsulitis is more common in diabetic patients. Ex. A. at 7. Dr. Abrams noted that Ms. Crawford's Hba1c value was elevated and that hyperglycemia "is known to have significant negative effects on the shoulder and makes patients more susceptible to the development of inflammatory conditions, such as adhesive capsulitis." *Id*. Dr. Abrams goes on to explain how hyperglycemia affects the muscles in the shoulder citing several medical articles that show the prevalence of adhesive capsulitis in patients with diabetes. *Id*. at 7-8. He explains that with a SIRVA injury, the subacromial space/bursa is injected with antigenic material, while with adhesive capsulitis, the contracture of the glenohumeral capsule is the hallmark sign – two distinctly different components of the shoulder structure. *Id*. at 8.

Regarding Dr. Srikumaran's report, Dr. Abrams states "[n]owhere in his report, nor the Hesse et al. article, is there a discussion of how adhesive capsulitis can be caused of injection of antigenic material to the joint, presumably because this would be extremely unlikely to occur in someone with an intact rotator cuff." *Id*. at 8-9.

Dr. Abrams next discusses how Ms. Crawford's rotator cuff tendinopathy and arthritis are a more likely alternative cause of her shoulder pain. Ex. A. at 9. As Dr. Srikumaran notes, there is an association between rotator cuff partial tears and tendinosis with a SIRVA injury, but "causation is lacking." *Id*. This is because of the overwhelming occurrence of these types of symptoms in the general population, especially in Ms. Crawford's age group. *Id*. Dr. Abrams opines that it is more likely that Ms. Crawford's rotator cuff tendinopathy and arthritis "became naturally symptomatic over the course of a four-month timeframe after vaccination rather than due to the vaccination itself." *Id*. He states that in his experience, it is uncommon for a patient to identify a trigger for their shoulder pain, but rather identify a period of time over which the shoulder began to bother them (absent some traumatic event). *Id*.

Regarding Ms. Crawford's *right* shoulder pain, Dr. Abrams states that Dr. Srikumaran's statement that Ms. Crawford's right shoulder injury is due to her compensation for the left shoulder dysfunction "is not clinically plausible." Ex. A at 9. He explains that compensatory contralateral shoulder pain is not uncommon, but not at two years after onset of the original extremity; it would occur much sooner. *Id*. Dr. Abrams concludes that the fact that the right shoulder pain began long after onset of the vaccination "points more to the predisposition of the petitioner to develop shoulder pain due to her diabetes as well as degenerative changes of the shoulder." *Id*. He notes that Ms. Crawford's pain was "episodic and not continuous" from the time of vaccination to July 2020, leading to the conclusion that arthritis, a slowly developing and progressive condition, is the more likely source of her shoulder pain. *Id*.

Finally, Dr. Abrams states that in the notes from Ms. Crawford's shoulder surgery in June 2020, the surgeon observed that there was "significant fraying of the superior aspect of the labrum, tenosynovitis of the long head of the biceps tendon, and diffuse Grade 2 and focal Grade 3 cartilage damage to the glenoid (Ex 14, p 13)." Ex. A at 10. These findings are not consistent with a SIRVA injury. *Id*.

B. Dr. Srikumaran's Supplemental Expert Report

Dr. Srikumaran submitted a supplemental expert report responding to Dr. Abrams. Ex. 33. Regarding the onset of Ms. Crawford's shoulder pain, Dr. Srikumaran notes that after Ms. Crawford sought care for her left shoulder injury, "she consistently and reliably

reported the onset of her pain as starting after receiving vaccination." *Id*. at 1. He explains that the medical profession routinely relies upon the patient history, along with the physical exam, imaging, and other diagnostic assessments. *Id*. at 1-2. Dr. Srikumaran also notes that is unlikely that Ms. Crawford's husband, friend, and daughter all had unreliable recollection of the events that followed Ms. Crawford's vaccination, as is articulated in their declarations. *Id*. at 1.

Regarding the issue of Ms. Crawford's diabetes contributing to her development of adhesive capsulitis, Dr. Srikumaran agrees that all diabetic patients are at higher risk of developing adhesive capsulitis. Ex. 33 at 2. In response to Dr. Abrams's statement, Dr. Srikumaran states that he is not suggesting that the inflammation from the subacromial bursa penetrated directly into the joint capsule to cause adhesive capsulitis, but rather, the adhesive capsulitis results as a sequela from the bursitis and pain. He states that the pain can cause a patient to protect their arm by avoiding certain movements and at times completely immobilizing the arm. *Id*. at 2. Dr. Srikumaran goes on to explain that it is more likely than not that Ms. Crawford's chronic conditions of her left shoulder (rotator cuff partial tears, tendinosis, cartilage damages) became more symptomatic after inflammation caused by the vaccine. This, he states, is a more likely scenario than having the symptoms flare up without a nidus. *Id*.

Dr. Srikumaran states that although he was incorrect on the timing of the onset of Ms. Crawford's *right* shoulder pain (he reported it occurred 10 months post-vaccination versus two years post-vaccination), the timing does not affect his opinion. Ex. 33 at 3. He states that Ms. Crawford's repeated need to compensate for her left shoulder over a long period of time, and the increased burden on her right shoulder made her right shoulder chronic conditions symptomatic. *Id*. Dr. Srikumaran notes that unlike her left shoulder, Ms. Crawford's right shoulder symptoms were transient, isolated, and resolved. *Id*.

Finally, in addressing the statement put forth by the North American Orthopedic professional society, cited by Dr. Abrams, which states that there is no high quality evidence that demonstrates that vaccination can cause or contribute to common shoulder problems such as rotator cuff tendinopathy or arthritis, Dr. Srikumaran notes that the AAOS's position does not consider the overall growing body of evidence and medical literature to the contrary and the position contains a disclaimer that it is not a product of systemic review*, i.e*., readers are encouraged to consider the information and reach their own conclusions. *Id*. at 3. Dr. Srikumaran states that he rejects the conclusions of this non-peer reviewed position statement. *Id*. at 4.

B. Dr. Abram's Supplemental Report

In his supplemental report, Dr. Abrams reiterates his position that it is unlikely that Ms. Crawford's shoulder pain began within 48 hours of vaccination. Ex. C at 1. He explains that Ms. Crawford saw her primary care physician on four separate occasions and discussed issues such as working out at the gym. *Id*. Dr. Abrams state that it would be very unlikely that Ms. Crawford would omit complaining about her shoulder pain to a physician that she sees for all general issues, including her cough and diabetes management. *Id*. He stated that this was especially so when discussing her return to the gym – it would have been a very likely that Ms. Crawford complained about shoulder pain if she had been discussing going to the gym. *Id*.

Dr. Abrams also discusses the *Shi et al*. article cited by Dr. Srikumaran which discusses the reasons patients sometimes delay seeking treatment. Ex. C at 1. Dr. Abrams explained that the reasons discussed in that article, lack of access to care (i.e., insured) as well as difficulty communicating with providers, are not issues that were present when Ms. Crawford was seeking care. *Id*. at 2. He explained that Ms. Crawford's life events did not prevent her from seeking care for her other non-urgent conditions. *Id*. Regarding the witness affidavits, Dr. Abrams states that "memory is malleable and certainly prone to suggestion over time …" *Id*.

Regarding Ms. Crawford's pain, Dr. Abrams notes that Dr. Srikumaran agrees that diabetic patients are at higher risk for adhesive capsulitis. Ex. C at 2. Dr. Abrams states that Dr. Srikumaran slightly shifted his argument that an injection can lead to adhesive capsulitis by explaining that when a patient has bursitis from the injection, the patient can experience pain which can lead to a decreased range of motion, leading to shoulder stiffness and resulting in adhesive capsulitis. *Id*. However, Dr. Abrams states that the medical records establish a timeline where Ms. Crawford did not experience pain immediately after vaccination, and thus, her diabetes is a more likely cause of her adhesive capsulitis. *Id*. at 3. His conclusion is that while "SIRVA can be diagnosed in the appropriate circumstances, the clinical facts present in this case make a non-SIRVA-related cause of shoulder pain more likely." *Id*.

IV. Parties' Respective Arguments

Petitioner argues that the medical records, affidavit, and Dr. Srikumaran's expert reports all clearly demonstrate that she suffered a SIRVA injury following receipt of the flu vaccine on September 4, 2017. Mot. at 1. Respondent argues that Petitioner's claim fails because the onset of her shoulder pain did not occur within 48 hours of vaccination, and that her shoulder symptoms are caused by a factor unrelated to vaccination (i.e., prior shoulder pathology and her diabetes diagnosis). Thus, two Table SIRVA injury

requirements cannot be met. Opp. at 1; 23. Respondent also argues that Petitioner has not established a cause-in-fact claim. *Id*. at 23.

V. Applicable Law

Pursuant to Vaccine Act Section 13(a)(1)(A), a petitioner must prove, by a preponderance of the evidence, the matters required in the petition by Vaccine Act Section 11(c)(1). A special master must consider, but is not bound by, any diagnosis, conclusion, judgment, test result, report, or summary concerning the nature, causation, and aggravation of petitioner's injury or illness that is contained in a medical record. Section 13(b)(1). "Medical records, in general, warrant consideration as trustworthy evidence. The records contain information supplied to or by health professionals to facilitate diagnosis and treatment of medical conditions. With proper treatment hanging in the balance, accuracy has an extra premium. These records are also generally contemporaneous to the medical events." *Cucuras v. Sec'y of Health & Hum. Servs*., 993 F.2d 1525, 1528 (Fed. Cir. 1993).

Accordingly, where medical records are clear, consistent, and complete, they should be afforded substantial weight. *Lowrie v. Sec'y of Health & Hum. Servs*., No. 03-1585V, 2005 WL 6117475, at *20 (Fed. Cl. Spec. Mstr. Dec. 12, 2005). However, this rule does not always apply. "Written records which are, themselves, inconsistent, should be accorded less deference than those which are internally consistent." *Murphy v. Sec'y of Health & Hum. Servs.*, No. 90-882V, 1991 WL 74931, *4 (Fed. Cl. Spec. Mstr. April 25, 1991), quoted with approval in decision denying review, 23 Cl. Ct. 726, 733 (1991), *aff'd per curiam*, 968 F.2d 1226 (Fed.Cir.1992)). And the Federal Circuit recently "reject[ed] as incorrect the presumption that medical records are accurate and complete as to all the patient's physical conditions." *Kirby v. Sec'y of Health & Hum. Servs.*, 997 F.3d 1378, 1383 (Fed. Cir. 2021).

The United States Court of Federal Claims has outlined four possible explanations for inconsistencies between contemporaneously created medical records and later testimony: (1) a person's failure to recount to the medical professional everything that happened during the relevant time period; (2) the medical professional's failure to document everything reported to her or him; (3) a person's faulty recollection of the events when presenting testimony; or (4) a person's purposeful recounting of symptoms that did not exist. *La Londe v. Sec'y of Health & Hum. Servs*., 110 Fed. Cl. 184, 203-04 (2013), *aff'd*, 746 F.3d 1335 (Fed. Cir. 2014).

The Court has also said that medical records may be outweighed by testimony that is given later in time that is "consistent, clear, cogent, and compelling." *Camery v. Sec'y of Health & Hum. Servs*., 42 Fed. Cl. 381, 391 (1998) (citing *Blutstein v. Sec'y of Health*

& Hum. Servs., No. 90-2808, 1998 WL 408611, at *5 (Fed. Cl. Spec. Mstr. June 30, 1998). The credibility of the individual offering such fact testimony must also be determined. *Andreu v. Sec'y of Health & Hum. Servs.*, 569 F.3d 1367, 1379 (Fed. Cir. 2009); *Bradley v. Sec'y of Health & Hum. Servs*., 991 F.2d 1570, 1575 (Fed. Cir. 1993).

A special master may find that the first symptom or manifestation of onset of an injury occurred "within the time period described in the Vaccine Injury Table even though the occurrence of such symptom or manifestation was not recorded or was incorrectly recorded as having occurred outside such period." Section 13(b)(2). "Such a finding may be made only upon demonstration by a preponderance of the evidence that the onset [of the injury] . . . did in fact occur within the time period described in the Vaccine Injury Table." *Id*.

The special master is obligated to fully consider and compare the medical records, testimony, and all other "relevant and reliable evidence contained in the record." *La Londe*, 110 Fed. Cl. at 204 (citing Section 12(d)(3); Vaccine Rule 8); *see also Burns v. Sec'y of Health & Hum. Servs*., 3 F.3d 415, 417 (Fed. Cir. 1993) (holding that it is within the special master's discretion to determine whether to afford greater weight to medical records or to other evidence, such as oral testimony surrounding the events in question that was given at a later date, provided that such determination is rational).

VI. Analysis

I. Fact Findings – Onset and Entitlement

Pursuant to Vaccine Act Section 13(a)(1)(A), a petitioner must prove, by a preponderance of the evidence, the matters required in the petition by Vaccine Act Section 11(c)(1). In addition to requirements concerning the vaccination received, the duration and severity of petitioner's injury, and the lack of other award or settlement,[3] a petitioner must establish that he suffered an injury meeting the Table criteria, in which case causation is presumed, or an injury shown to be caused-in-fact by the vaccination she received. Section 11(c)(1)(C).

The most recent version of the Table, which can be found at 42 C.F.R. § 100.3, identifies the vaccines covered under the Program, the corresponding injuries, and the time period in which the particular injuries must occur after vaccination. Section 14(a). Pursuant to the Vaccine Injury Table, a SIRVA is compensable if it manifests within 48

[3] In summary, a petitioner must establish that she received a vaccine covered by the Program, administered either in the United States and its territories or in another geographical area but qualifying for a limited exception; suffered the residual effects of her injury for more than six months, died from her injury, or underwent a surgical intervention during an inpatient hospitalization; and has not filed a civil suit or collected an award or settlement for her injury. *See* § 11(c)(1)(A)(B)(D)(E).

hours of the administration of an influenza vaccine. 42 C.F.R. § 100.3(a)(XIV)(B). A vaccine recipient shall be considered to have suffered SIRVA if such recipient manifests all of the following:

> (i) No history of pain, inflammation, or dysfunction of the affected shoulder prior to intramuscular vaccine administration that would explain the alleged signs, symptoms, examination findings, and/or diagnostic studies occurring after vaccine injection;
>
> (ii) Pain occurs within the specified time frame;
>
> (iii) Pain and reduced range of motion are limited to the shoulder in which the intramuscular vaccine was administered; and
>
> (iv) No other condition or abnormality is present that would explain the patient's symptoms (*e.g*. NCS/EMG or clinical evidence of radiculopathy, brachial neuritis, mononeuropathies, or any other neuropathy).

42 C.F.R. § 100.3(c)(10).

A special master must consider, but is not bound by, any diagnosis, conclusion, judgment, test result, report, or summary concerning the nature, causation, and aggravation of petitioner's injury or illness that is contained in a medical record. Section 13(b)(1). "Medical records, in general, warrant consideration as trustworthy evidence. The records contain information supplied to or by health professionals to facilitate diagnosis and treatment of medical conditions. With proper treatment hanging in the balance, accuracy has an extra premium. These records are also generally contemporaneous to the medical events." *Cucuras v. Sec'y of Health & Hum. Servs*., 993 F.2d 1525, 1528 (Fed. Cir. 1993).

Accordingly, where medical records are clear, consistent, and complete, they should be afforded substantial weight. *Lowrie v. Sec'y of Health & Hum. Servs*., No. 03-1585V, 2005 WL 6117475, at *20 (Fed. Cl. Spec. Mstr. Dec. 12, 2005). However, the Federal Circuit has recently "reject[ed] as incorrect the presumption that medical records are always accurate and complete as to all of the patient's physical conditions." *Kirby v. Sec'y of Health & Hum. Servs.*, 997 F.3d 1378, 1383 (Fed. Cir. 2021). Medical professionals may not "accurately record everything" that they observe or may "record only a fraction of all that occurs." *Id.*

Medical records may be outweighed by testimony that is given later in time that is "consistent, clear, cogent, and compelling." *Camery v. Sec'y of Health & Hum. Servs.*, 42 Fed. Cl. 381 at 391 (1998) (citing *Blutstein v. Sec'y of Health & Hum. Servs.*, No. 90-2808, 1998 WL 408611, at *5 (Fed. Cl. Spec. Mstr. June 30, 1998). The credibility of the individual offering such testimony must also be determined. *Andreu v. Sec'y of Health & Hum. Servs.*, 569 F.3d 1367, 1379 (Fed. Cir. 2009); *Bradley v. Sec'y of Health & Hum. Servs*., 991 F.2d 1570, 1575 (Fed. Cir. 1993).

A special master may find that the first symptom or manifestation of onset of an injury occurred "within the time period described in the Vaccine Injury Table even though the occurrence of such symptom or manifestation was not recorded or was incorrectly recorded as having occurred outside such period." Section 13(b)(2). "Such a finding may be made only upon demonstration by a preponderance of the evidence that the onset [of the injury] . . . did in fact occur within the time period described in the Vaccine Injury Table." *Id*.

The special master is obligated to fully consider and compare the medical records, testimony, and all other "relevant and reliable evidence contained in the record." *La Londe Sec'y of Health & Hum. Servs*., 110 Fed. Cl. 184 at 204 (2013) (citing § 12(d)(3); Vaccine Rule 8); *see also Burns v. Sec'y of Health & Hum. Servs*., 3 F.3d 415, 417 (Fed. Cir. 1993) (holding that it is within the special master's discretion to determine whether to afford greater weight to medical records or to other evidence, such as oral testimony surrounding the events in question that was given at a later date, provided that such determination is rational).

A. Factual Findings Regarding a Table SIRVA

After a review of the entire record, I find that a preponderance of the evidence demonstrates that Petitioner has satisfied the Qualifications and Aids to Interpretation ("QAI") requirements for a Table SIRVA.

1. Petitioner has no Prior Left Shoulder Condition or Injury

The first requirement for a Table SIRVA is a lack of problems associated with the affected shoulder prior to vaccination that would explain the symptoms experienced after vaccination. 42 C.F.R. § 100.3(c)(10)(i). Although Respondent has insinuated that Ms. Crawford had preexisting shoulder degeneration issues which may have contributed to her left shoulder pathology, he has not specifically raised this first requirement as a basis for dismissal, and has clearly stated in his brief that Ms. Crawford "did not have a history of left shoulder pain or injury." Opp. at 4. The specific language of the relevant QAI portion

states that there must be "[n]o history of pain, inflammation or dysfunction of the affected shoulder prior to intramuscular vaccine administration that would explain the alleged signs, symptoms, examination findings, and/or diagnostic studies occurring after vaccine injection." 42 C.F.R. § 100.3(c)(10)(i). Ms. Crawford's medical history does not evidence pre-vaccination explanatory "pain, inflammation or dysfunction." Thus, the evidence preponderantly supports the conclusion that any pre-vaccination symptoms were not likely related to what Petitioner experienced post-vaccination. The first SIRVA criterion is met.

2. Pain Occurs with the Specified Timeframe (Onset)

Regarding the onset of Petitioner's pain, in order to meet the definition of a Table SIRVA, a petitioner must show that she experienced the first symptom or onset within 48 hours of vaccination (42 C.F.R. § 100.3(a)(XIV)(B)) and that her pain occurred within that same 48-hour period (42 C.F.R. § 100.3(c)(10)(ii) (QAI criteria)).

Respondent's argument rests on the fact that Ms. Crawford did not report her shoulder injury to a medical provider until nearly four months after vaccination, and in the interim, she presented to medical providers on five separate occasions and did not report shoulder pain to any of them. Opp. at 16. Significantly, Respondent notes that four of these interim visits were with the family health clinic from which Ms. Crawford received primary care. *Id*. At the first such visit, on September 18, 2017, two weeks after vaccination, Ms. Crawford was noted to be going to the gym and lifting weights two to three times per week. Ex. 3 at 111. It was not until January 2, 2018, almost four months after vaccination, that she first reported shoulder pain to her PCP. *Id.* at 81-85, 87.

In her affidavit, Ms. Crawford explains the reasons for her delay in seeking treatment. She attributes the delay to a fire that occurred at her house in October 2017, her time spent on a scheduled vacation cruise, and then first seeking care for a more urgent cough that required treatment when she returned. Ex. 37 at ¶4. She states that "[g]iven the fire, my travels, the holidays, my bad cough, and my belief that the shoulder pain would go away, I did not call to make an appointment for my shoulder until December 29, 2017." *Id*.

Ms. Crawford also submitted the affidavits of her husband, daughter, and friend who all averred to observing and hearing Ms. Crawford complain of left shoulder pain in the days and weeks following her September 4, 2017 vaccination. Exs. 15, 16, 17. Specifically, Ms. Crawford's husband, Mr. Laurence Stahl, stated "[w]ithin a few days of the vaccination, she complained to me that her left shoulder was still in pain from the vaccination and that she was concerned that the pain was still present." Ex. 16. Ms.

Crawford's daughter, Wanda Bruster, stated, "I have a distinct memory of her initial complaint of shoulder pain a couple of weeks after her flu vaccine. My mother is not one to complain about pain, so this stands out in my mind…" Ex. 17.

Both Petitioner's and Respondent's experts spent a significant amount of time in their reports opining on the reasons Ms. Crawford delayed reporting her shoulder symptoms. Exs. 18, A. However, the question of onset of shoulder pain is a factual question for which expert testimony is not necessary (although explanations for delay inform somewhat the outcome, in any case where pain onset issues involve treatment delays). Neither Dr. Srikumaran nor Dr. Abrams has any additional evidence or factual information than the information that is contained in the record. While both have offered very credible reasons for why Ms. Crawford did or did not report her shoulder pain more promptly, these reasons are ultimately speculation. Thus, I must review the facts as a whole, including the medical records and affidavit testimony, and reach a conclusion based on a preponderance of the evidence.

There is no dispute that Ms. Crawford waited nearly four months before being seen for her left shoulder symptoms. This is not an insignificant amount of time and Respondent's objection regarding onset is a credible one. However, there are a variety of reasons that an individual may wait before seeking medical treatment especially for a shoulder injury related to a vaccine injury.

Many individuals expect, and are advised, that there will be pain at the injection site after vaccination. This can lead to a delay in seeking treatment. An individual's particular threshold for pain or avoidance of doctors are other reasons. In this case, Ms. Crawford's daughter stated that her mother is one that typically does not complain about pain.

In addition, Ms. Crawford had a series of events in the months following vaccination that she explained made her delay seeking medical treatment for her shoulder, despite the fact that she sought treatment for other unrelated symptoms. Ms. Crawford stated that she did mention in passing her shoulder pain to her physicians during some of her intervening medical visits, but these complaints were not documented. This is not unusual. Post-vaccination pain is a typical side effect associated with vaccination. Many SIRVA cases feature medical record notations from physicians recommending that a patient wait a period of time after vaccination to allow time for the shoulder pain to fade before seeking treatment. Continued pain for nearly four months is not typical, however. It was at this stage that Ms. Crawford sought medical attention. Her first documented complaint of shoulder pain on January 2, 2019, specifically links her left shoulder pain to

her September 2017 influenza vaccine. ("P[atien]t correlate[d] onset [with] [an] influenza vaccine done on [the] same side," but denied other trauma. Ex. 3 at 87).

Thereafter, there are a consistent number of medical record citations that all link the onset of Ms. Crawford's left shoulder pain to her vaccination. *See* e.g., Ex. 4 at 2 and 52 (noting that Ms. Crawford "had flu shot and shoulder started to ache"); Ex. 7 at 12 ("74 y[ear] o[ld] dependent female with L[eft] shoulder pain that started after immunization in 2017."); Ex. 9 at 6; ("She reports that the symptoms started in her left shoulder in September 2017 following a flu shot."); Ex. 10 at 6, 26, and 40 ("74 year old right handed female presents with c/o L shoulder pain worst sub-deltoid and lateral upper arm. Date: September 2017. Mechanism of injury: after flu shot."); Ex. 14 at 13 ("This is a 75-year-old female who began having pain in her left shoulder in 2017 following a flu shot."); Ex. 34 at 3 ("Patient is a 76 yo RHD female who presents with L shoulder pain for the past few years. Patient reports pain initially began after she received her flu shot in September of 2017 that resulted in frozen shoulder"). Onset in these later records is further corroborated by the declarations of Petitioner and the three other witness declarations offered in support of Ms. Crawford's case. The fact that several of these treatment-related records were generated within four to six months of vaccination is also relevant to this inquiry; this is not a case where a petitioner relies on records long after the immediate timeframe to prove onset.

Although a four-month delay in seeking treatment for shoulder pain and symptoms does not absolutely negate a SIRVA claim, it does provide evidence on the issue of severity. (That issue is discussed in the damages section *infra* – and as noted below, it establishes some grounds for reducing the magnitude of the pain and suffering award in this case). But on the issue of onset, the totality of the evidence preponderantly supports the conclusion that Ms. Crawford's shoulder pain occurred within 48 hours of her vaccination. I reiterate, however, that this is a *fairly weak* preponderant showing – enough to barely cross the "fifty percent and a feather" line, but not enough to fully remove all doubt that onset was possibly later.

3. Petitioner's Pain and Limited Range of Motion was Limited to her Left Shoulder

The specific language of a SIRVA injury contained in the QAI of the Vaccine Injury Table is that "pain and reduced range of motion are limited to the shoulder in which the intramuscular vaccine was administered." 42 C.F.R. § 100.3(c)(10)(iii) (QAI criteria)). It does not appear that Respondent is contesting this criterion. However, there is a brief reference to a right shoulder x-ray and symptoms that I will briefly address. On July 17, 2019, Ms. Crawford underwent an x-ray of her right shoulder, which apparently was

performed due to bilateral shoulder pain, and showed degenerative enthesopathic acromial spurring and degenerative hypertrophic changes involving the right acromioclavicular articulation. Ex. 9 at 3. In her affidavit, Ms. Crawford stated that she has never complained of right arm or shoulder pain and does not know why she had a right shoulder x-ray, except for the purposes of comparing it to her left shoulder. Ex. 37 at 1. In July 2020, Ms. Crawford had apparently requested a correction on a radiology request from the right shoulder to her left shoulder, seemingly regarding this x-ray. Ex. 14 at 8-9.

There is only this single x-ray related to the right shoulder and Ms. Crawford is not claiming any injury nor is she seeking any compensation related to her right shoulder. In addition, Respondent's brief makes no argument that Petitioner's pain and limited range of motion was not limited to her left shoulder. Thus, I find that all the evidence presented supports a finding that Ms. Crawford's pain and reduced range of motion was limited to her left shoulder, and that she has fulfilled this criterion.

4. There is No Evidence of Another Condition or Abnormality

The last criterion for a Table SIRVA states that there must be no other condition or abnormality which would explain Petitioner's current symptoms. 42 C.F.R. § 100.3(c)(10)(iv). Respondent's argument is twofold: (1) that Petitioner's imaging and operative findings demonstrate other chronic shoulder pathology that predated or is unrelated to the vaccination, and (2) that Ms. Crawford's diabetes mellitus is a more likely cause of her adhesive capsulitis. Thus, Respondent claims that Petitioner has failed to establish a Table claim.

First, Respondent argues that Ms. Crawford's MRI showed evidence of rotator cuff tendinopathy and mild arthritis. Ex. A at 7. Dr. Abrams opined that "[w]hile these conditions certainly existed prior to the vaccination in question, it is more likely that they became naturally symptomatic over the course of a four-month timeframe after the vaccination rather than due to the vaccination itself." *Id.* at 9. Dr. Abrams further states that these symptoms "are exceedingly common in petitioner's age group, "and "a leading cause of shoulder pain in the general population." *Id.* (citing Ex. A11).

In Dr. Abrams's view, it is uncommon for patients with slowly developing conditions, such as arthritis, to identify a trigger absent major trauma. *Id.* at 9. As a result, Dr. Abrams believes "it is more likely that the petitioner's shoulder pain developed due to the normal and expected course of her degenerative shoulder, rather than some nontraumatic event such as a vaccination, particularly when given the extended time period of nearly four months between the vaccination and the first report of shoulder pain." *Id.* Given Ms. Crawford's waxing and waning of symptoms, Dr. Abrams states that

"[s]houlder arthritis is, by nature, a slowly developing and progressive condition that typically has stepwise deterioration," and that "this episodic timeline argues against SIRVA as a diagnosis and points rather to the petitioner's predisposition to develop shoulder pain due to her medical condition." *Id*. at 10. Regarding Ms. Crawford's MRI, Dr. Abrams stated that the findings of fraying of the labrum, tenosynovitis of the bicep tendon and diffuse cartilage damages to the glenoid (Ex. 14 at 13) "are not consistent with SIRVA related injuries and further provide evidence as to why the petitioner's shoulder began to have symptoms again after a period of relative quiescence from at least July of 2018 through May of 2019." *Id*.

Petitioner's expert, Dr. Srikumaran, disagrees, stating that the chronic conditions seen on Ms. Crawford's MRI "became symptomatic after inflammation caused by the injection…" Ex. 33 at 2-3. He noted that Ms. Crawford, "like most people her age, will have imaging findings of chronic degenerative conditions such as frayed or partially torn ligaments and tendons and osteoarthritic joints. However, the majority of these chronic conditions are asymptomatic." *Id*. at 12. Dr. Srikumaran states that his theory is that it "is the initial of inflammation directly related to the vaccine antigen being deliver to or near the bursa or synovium of the joint… It is this inflammation which initiates pain in previously long standing, silent, chronic degenerative conditions." *Id.* He argued that it was more likely than not that her symptoms were a result of the vaccination "than to slowly develop without a nidus." *Id*. He goes on to state that "[t]here can be many triggers to inflammation that cause a degenerative condition to become symptomatic. I agree with Dr. Abrams that in cases where patients *cannot* identify a trigger, or cannot identify one reliably, it would be more likely than not a chronic condition could explain their symptoms. However, in this case we do indeed have a trigger with a strong, reliably, and consistently reported, temporal association." *Id*.

Regarding the x-ray of Ms. Crawford's *right* shoulder, Dr. Abrams opined that the fact that Ms. Crawford had right shoulder pain and degenerative findings on imaging of her right shoulder "points more to the predisposition of the petitioner to develop shoulder pain due to her diabetes as well as degenerative changes in the shoulder." Ex. A at 9. Dr. Srikumaran, on the other hand, opines that due to her left shoulder pain, Ms. Crawford overcompensated by using her right shoulder. Ex. 18 at 12. He states, "This is quite typical when patients have shoulder pain one side to over compensate with their other shoulder which can often lead to new complaints in that opposite shoulder as it takes on additional demands. This is a common way patients attempt to protect their most symptomatic side and I do not find this unusual." *Id*.

In her supplemental affidavit, Ms. Crawford stated that she has never complained of right arm or shoulder pain and does not know why she had a right shoulder x-ray,

except for the purposes of comparing it to her left shoulder. Ex. 37 at 1. The significance of this right shoulder x-ray is not immediately apparent, but in any event, it does not play a role in causation in this case. Petitioner does not make any claim for a right shoulder injury, she does not recall complaining of right shoulder pain, and the entire record only contains this single reference to her right shoulder. Although Dr. Abrams opines that the right shoulder x-ray is evidence of Ms. Crawford's predisposition to develop shoulder pain and arthritis, it is not preponderant evidence that disproves vaccine causation. Thus, I do not find that the right shoulder x-ray proves or disproves vaccine causation in this case.

Both experts agree that Ms. Crawford had evidence of arthritis and other degenerative changes in her left shoulder, as revealed by MRI, and that these conditions likely pre-dated the vaccination at issue. However, I find Petitioner's expert, Dr. Srikumaran's explanation to be more persuasive. Ms. Crawford had no issues with her left shoulder prior to her September 4, 2017 vaccination, a point that is not disputed by either party. I have found, based on the evidence before me, that Ms. Crawford did experience pain in her left shoulder within 48 hours of vaccination as I articulated above. Respondent's expert's explanation that Ms. Crawford's arthritic and degenerative pain coincidentally flared within two days of receiving a flu vaccination to the area of her left shoulder where her pain occurred is ultimately unpersuasive. It is more likely than not that the flu vaccination, as Dr. Srikumaran explained, triggered inflammation in her previously asymptomatic left shoulder as a result of her vaccination. Thus, any preexisting conditions that Ms. Crawford may have had in her left shoulder do *not* likely explain her left shoulder symptoms after vaccination.

Second, Respondent argues that Petitioner's diagnosis of diabetes mellitus is a more likely cause of her adhesive capsulitis. Opp. at 20. Dr. Abrams noted in his report that in the month before the vaccination at issue in this case (August 2017), Ms. Crawford's HbA1c value for hyperglycemia was elevated. Ex. A. at 7. He stated that "[h]yperglycemia is known to have significant negative effects on the shoulder and makes patients more susceptible to the development of inflammatory conditions, such as adhesive capsulitis." *Id*. Dr. Abrams explained the mechanism for how diabetes affects the muscle tissue and states that the incidence of shoulder impairments in individuals with diabetes is "extremely common." *Id*. at 7-8. He cites and attaches medical literature regarding the increased risk of an adhesive capsulitis diagnosis in individuals with diabetes. *Id*. Regarding Ms. Crawford's case, Dr. Abrams states that based on her diagnosis, "there is a significantly greater chance that she acquired [adhesive capsulitis] as a result of her diabetes rather than the vaccination." *Id*. at 8.

Dr. Abrams also explained that SIRVA could not cause adhesive capsulitis due to the glenohumeral joint pathology. Ex. A. at 8. He states that "contracture of the

glenohumeral capsule is the hallmark of adhesive capsulitis," and that the "capsule is located only in the glenohumeral (ball and socket) joint, not the subacromial space." *Id*. Thus, he opines that the "[s]tandard needle length used for intramuscular injection in a patient of the petitioner's height, weight, and BMI … would not be long enough to reach the intra-articular space from a deltoid injection, particularly in someone who has a BMI in the overweight range." *Id*. at 9.

In response, Dr. Srikumaran explained that while he agrees that all diabetic patients are at higher risk for adhesive capsulitis, pain from bursitis caused by an injection can cause a patient to protect their arm by avoiding certain movement and at times immobilizing the arm. Ex. 33 at 2. This guarding can cause stiffness in the capsule. *Id*. Dr. Srikumaran clarified that he was "not suggesting that the inflammation from the subacromial bursitis necessarily penetrated directly to the joint capsule, but in combination with a predisposition to adhesive capsulitis, the patient developed adhesive capsulitis as the result of sequela from that bursitis and resulting pain." *Id*. He stated that this temporal relationship between vaccination and the development of adhesive capsulitis was more plausible than the spontaneous development of adhesive capsulitis due to having diabetes. *Id*.

Again, similar to my finding regarding the development of pain due to the natural development of arthritis and degeneration, I find that Dr. Srikumaran's explanation to be more persuasive. Ms. Crawford has had diabetes for more than ten years. Ex. 37 at 1. But she stated that she had never experienced any pain with her muscles and joints until after the September 4, 2017 vaccination. *Id*. While Ms. Crawford's diabetes may have made it more likely for her to have suffered a shoulder injury *at some point*, I find that her diabetes was not specifically an alternative cause or factor unrelated to vaccination which best explains her left shoulder symptoms. Thus, I find there is no other condition or abnormality present that would explain Petitioner's symptoms.

B. Other Requirements for Entitlement

In addition to establishing a Table injury, a petitioner must also provide preponderant evidence of the additional requirements of Section 11(c). The overall record contains preponderant evidence to fulfill these additional requirements.

The record shows that Ms. Crawford received a flu vaccine intramuscularly in her left shoulder on September 4, 2017. Ex. 2 at 1; *see* Section 11(c)(1)(A) (requiring receipt of a covered vaccine); Section 11(c)(1)(B)(i)(I) (requiring administration within the United States or its territories). There is no evidence that Petitioner has collected a civil award for her injury. Petition at 4; Section 11(c)(1)(E) (lack of prior civil award).

As stated above, I have found that the onset of Petitioner's left shoulder pain was within 48 hours of vaccination. *See* 42 C.F.R. § 100.3(c)(10)(ii) (setting forth this requirement). This finding also satisfies the requirement that Petitioner's first symptom or manifestation of onset occur within the time frame listed on the Vaccine Injury Table. 42 C.F.R. § 100.3(a)(XIV)(B) (listing a time frame of 48 hours for a Table SIRVA following receipt of the influenza vaccine). I have also found that Petitioner's pain and reduced range of motion was limited to her left shoulder. 42 C.F.R. § 100.3(c)(10). Finally, I find that there was no condition or abnormality that would explain Petitioner's symptoms after vaccination. *Id*. Therefore, Petitioner has satisfied all requirements for a Table SIRVA.

The last criteria which must be satisfied by Petitioner involves the duration of her SIRVA. For compensation to be awarded, the Vaccine Act requires that a petitioner suffer the residual effects of his or her left shoulder injury for more than six months or required surgical intervention. *See* Section 11(c)(1)(D)(i) (statutory six-month requirement). Starting from September 24, 2016 (48 hours after vaccination), the records undoubtedly demonstrate that Ms. Crawford suffered the residual effects of her shoulder injury for more than six months. *See*, *e.g.*, Ex. 7 at 17(record of Petitioner's appointment with her PCP); Ex. 5 (Petitioner's June 11, 2019 MRI of her left shoulder). Thus, this requirement is also met.

Based upon all of the above, Petitioner has established that she suffered a Table SIRVA. Additionally, she has satisfied all other requirements for compensation. I therefore find that Petitioner is entitled to compensation in this case.

VII. Damages

The parties have also briefed damages in this case, which is limited to claims for an award of actual pain and suffering plus past unreimbursable expenses. Petitioner requests $160,000.00 for her actual pain and suffering, and $45.57[4] for her past out-of-pocket medical expenses, for a total award of $160,045.57. Mot. at 1. Respondent proposed an award of $100,000.00 for pain and suffering and $45.57 for medical mileage. Opp. at 20. 1-2.

A. Legal Standards for Damages Awards

Compensation awarded pursuant to the Vaccine Act shall include "[f]or actual and projected pain and suffering and emotional distress from the vaccine-related injury, an

[4] In her Reply Brief, Ms. Crawford amended her request for out-of-pocket expenses to account only for out-of-pocket expenses related to mileage in the amount of $45.57. Respondent agrees that this amount is appropriate. Reply at 9-10.

award not to exceed $250,000." Section 15(a)(4). Additionally, a petitioner may recover "actual unreimbursable expenses incurred before the date of judgment award such expenses which (i) resulted from the vaccine-related injury for which petitioner seeks compensation, (ii) were incurred by or on behalf of the person who suffered such injury, and (iii) were for diagnosis, medical or other remedial care, rehabilitation . . . determined to be reasonably necessary." Section 15(a)(1)(B). The petitioner bears the burden of proof with respect to each element of compensation requested. *Brewer v. Sec'y of Health & Hum. Servs.*, No. 93-0092V, 1996 WL 147722, at *22-23 (Fed. Cl. Spec. Mstr. Mar. 18, 1996).

There is no mathematic formula for assigning a monetary value to a person's pain and suffering and emotional distress. *I.D. v. Sec'y of Health & Hum. Servs.*, No. 04-1593V, 2013 WL 2448125, at *9 (Fed. Cl. Spec. Mstr. May 14, 2013) ("[a]wards for emotional distress are inherently subjective and cannot be determined by using a mathematical formula"); *Stansfield v. Sec'y of Health & Hum. Servs.*, No. 93-0172V, 1996 WL 300594, at *3 (Fed. Cl. Spec. Mstr. May 22, 1996) ("the assessment of pain and suffering is inherently a subjective evaluation"). Factors to be considered when determining an award for pain and suffering include: 1) awareness of the injury; 2) severity of the injury; and 3) duration of the suffering. *I.D.*, 2013 WL 2448125, at *9 (quoting *McAllister v. Sec'y of Health & Hum. Servs.,* No 91-1037V, 1993 WL 777030, at *3 (Fed. Cl. Spec. Mstr. Mar. 26, 1993), *vacated and remanded on other grounds*, 70 F.3d 1240 (Fed. Cir. 1995)).

I may also consider prior pain and suffering awards to aid my resolution of the appropriate amount of compensation for pain and suffering in this case. *See, e.g.*, *Doe 34 v. Sec'y of Health & Hum. Servs.*, 87 Fed. Cl. 758, 768 (2009) (finding that "there is nothing improper in the chief special master's decision to refer to damages for pain and suffering awarded in other cases as an aid in determining the proper amount of damages in this case."). And, of course, I may rely on my own experience (along with my predecessor Chief Special Masters) adjudicating similar claims.[5] *Hodges v. Sec'y of Health & Hum. Servs.*, 9 F.3d 958, 961 (Fed. Cir. 1993) (noting that Congress contemplated the special masters would use their accumulated expertise in the field of vaccine injuries to judge the merits of individual claims).

Although pain and suffering in the past was often determined based on a continuum, as Respondent argues, that practice was cast into doubt several years ago by a particular decision from the Court. *Graves v. Sec'y of Health & Hum. Servs.,* 109

[5] From July 2014 until September 2015, the SPU was overseen by former Chief Special Master Vowell. For the next four years, until September 30, 2019, all SPU cases, including the majority of SIRVA claims, were assigned to former Chief Special Master Dorsey, now Special Master Dorsey. In early October 2019, the majority of SPU cases were reassigned to me as the current Chief Special Master.

Fed. Cl. 579 (Fed. Cl. 2013). *Graves* maintained that to do so resulted in "the forcing of all suffering awards into a global comparative scale in which the individual petitioner's suffering is compared to the most extreme cases and reduced accordingly." *Id.* at 590. Instead, *Graves* assessed pain and suffering by looking to the record evidence, prior pain and suffering awards within the Vaccine Program, and a survey of similar injury claims outside of the Vaccine Program. *Id*. at 595. Under this alternative approach, the statutory cap merely cuts off *higher* pain and suffering awards – it does not shrink the magnitude of *all* possible awards as falling within a spectrum that ends at the cap. Although *Graves* is not controlling of the outcome in this case, it provides reasoned guidance in calculating pain and suffering awards.

B. Prior SIRVA Compensation Within SPU[6]

A. Data Regarding Compensation in SPU SIRVA Cases

SIRVA cases have an extensive history of informal resolution within the SPU. As of January 1, 2024, 3,696 SPU SIRVA cases have resolved since the inception of SPU on July 1, 2014. Compensation was awarded in 3,588 of these cases, with the remaining 108 cases dismissed.

2,075 of the compensated SPU SIRVA cases were the result of a reasoned ruling that petitioner was entitled to compensation (as opposed to an informal settlement or concession).[7] In only 200 of these cases, however, was the amount of damages *also* determined by a special master in a reasoned decision.[8] As I have previously stated, the written decisions setting forth such determinations, prepared by neutral judicial officers

[6] All figures included in this decision are derived from a review of the decisions awarding compensation within the SPU. All decisions reviewed are, or will be, available publicly. All figures and calculations cited are approximate.

[7] The remaining 1,513 compensated SIRVA cases were resolved via stipulated agreement of the parties without a prior ruling on entitlement. These agreements are often described as "litigative risk" settlements, and thus represent a reduced percentage of the compensation which otherwise would be awarded. Because multiple competing factors may cause the parties to settle a case (with some having little to do with the merits of an underlying claim), these awards from settled cases do not constitute a reliable gauge of the appropriate amount of compensation to be awarded in other SPU SIRVA cases.

[8] The rest of these cases resulting in damages after concession were either reflective of a proffer by Respondent (1,846 cases) or stipulation (29 cases). Although all proposed amounts denote *some* form of agreement reached by the parties, those presented by stipulation derive more from compromise than instances in which Respondent formally acknowledges that the settlement sum itself is a fair measure of damages.

(the special masters themselves), provide the most reliable precedent setting forth what similarly-situated claimants should also receive.[9]

The data for all groups described above reflect the expected differences in outcome, summarized as follows:

	Damages Decisions by Special Master	Proffered Damages	Stipulated Damages	Stipulated[10] Agreement
Total Cases	*200*	*1,846*	*29*	*1,513*
Lowest	$40,757.91	$10,000.00	$45,000.00	$2,500.00
1st Quartile	$70,000.00	$61,338.13	$90,000.00	$36,000.00
Median	**$88,974.23**	**$81,049.85**	**$130,000.00**	**$53,500.00**
3rd Quartile	$125,007.45	$110,000.00	$162,500.00	$80,000.00
Largest	$265,034.87	$1,845,047.00	$1,500,000.00	$550,000.00

B. Pain and Suffering Awards in Reasoned Decisions

In the 200 SPU SIRVA cases in which damages were the result of a reasoned decision, compensation for a petitioner's actual or past pain and suffering varied from $40,000.00 to $210,000.00, with $85,000.00 as the median amount. Only nine of these cases involved an award for future pain and suffering, with yearly awards ranging from $250.00 to $1,500.00.[11]

In cases with lower awards for past pain and suffering, many petitioners commonly demonstrated only mild to moderate levels of pain throughout their injury course. This lack of significant pain is often evidenced by a delay in seeking treatment – over six months in one case. In cases with more significant initial pain, petitioners usually experienced this greater pain for three months or less. Most petitioners displayed only

[9] Of course, even though *any* such informally resolved case must still be approved by a special master, these determinations do not provide the same judicial guidance or insight obtained from a reasoned decision. But given the aggregate number of such cases, these determinations nevertheless "provide *some* evidence of the kinds of awards received overall in comparable cases." *Sakovits v. Sec'y of Health & Hum. Servs.*, No. 17-1028V, 2020 WL 3729420, at *4 (Fed. Cl. Spec. Mstr. June 4, 2020) (discussing the difference between cases in which damages are agreed upon by the parties and cases in which damages are determined by a special master).

[10] Two awards were for an annuity only, the exact amounts which were not determined at the time of judgment.

[11] Additionally, a first-year future pain and suffering award of $10,000.00 was made in one case. *Dhanoa v. Sec'y of Health & Hum. Servs.*, No. 15-1011V, 2018 WL 1221922 (Fed. Cl. Spec. Mstr. Feb. 1, 2018).

mild to moderate limitations in range of motion ("ROM"), and MRI imaging showed evidence of mild to moderate pathologies such as tendinosis, bursitis, or edema. Many petitioners suffered from unrelated conditions to which a portion of their pain and suffering could be attributed. These SIRVAs usually resolved after one to two cortisone injections and two months or less of physical therapy ("PT"). None required surgery. Except in one case involving very mild pain levels, the duration of the SIRVA injury ranged from six to 30 months, with most petitioners averaging approximately nine months of pain. Although some petitioners asserted residual pain, the prognosis in these cases was positive.

Cases with higher awards for past pain and suffering involved petitioners who suffered more significant levels of pain and SIRVAs of longer duration. Most of these petitioners subjectively rated their pain within the upper half of a ten-point pain scale and sought treatment of their SIRVAs more immediately, often within 30 days of vaccination. All experienced moderate to severe limitations in range of motion. MRI imaging showed more significant findings, with the majority showing evidence of partial tearing. Surgery or significant conservative treatment, up to 133 PT sessions - occasionally spanning several years, and multiple cortisone injections, were required in these cases. In eight cases, petitioners provided sufficient evidence of permanent injuries to warrant yearly compensation for future or projected pain and suffering.

C. Appropriate Compensation for Petitioner's Pain and Suffering

In this case, awareness of the injury is not disputed, leaving only the severity and duration of that injury to be considered. In determining appropriate compensation for pain and suffering, I have carefully reviewed and considered the complete record in this case, including all medical records, declarations, plus all filings submitted by both Petitioner and Respondent. I have also considered prior awards for pain and suffering in both SPU and non-SPU SIRVA cases and relied upon my experience adjudicating these cases. However, my determination is ultimately based upon the specific circumstances of this case.

In her brief, Ms. Crawford requests $160,000.00 for her pain and suffering and explains that her pain and suffering has persisted for nearly four years. Mot. at 30. She states that her left shoulder pain started within 24 hours of her September 4, 2017 vaccination, and her most recent SIRVA related treatment occurred on July 2, 2021. Ex. 36. In her supplemental affidavit, Ms. Crawford states that she still experiences shoulder pain every day and night. Ex. 27 at ¶10.

Regarding the severity of her injury, Ms. Crawford states that her pain and suffering is on the severe end. Mot. at 30. Her treatment consisted of three x-rays, one MRI, three

steroid injections, 65 total PT sessions (both pre- and post-surgery), shoulder surgery on June 22, 2020, Mobic, NSAIDS, ICE, a home exercise program, and activity modifications. Ms. Crawford states that she also has instructions from her current physician for "frequent, chronic cortisone injections as needed." Ex. 36; Ex. 37 at ¶9.

In her affidavit, Ms. Crawford explains that prior to the vaccination, she led an active life with various hobbies including gardening and exercising at the gym. Ex. 37 at ¶5. She explains that she can no longer lift heavy plants in her yard or dig holes to plant them due to her persistent shoulder pain. *Id*. at ¶5, 8. In addition, she states that she can no longer lift her grandchildren. Ms. Crawford averred that her constant pain has prevented her from getting a full night's sleep and that she tends to act "moody" or "irritable and snappy." *Id*. at ¶ 8, 10. She struggles with small tasks such as opening jars or driving long distances. *Id*. at ¶10.

To support her requested award for pain and suffering, Ms. Crawford cites to three cases: *Tumolo v. Sec'y of Health & Human Servs*., No. 16-343V, 2020 WL 6279711, at *15 (Fed. Cl. Oct. 1, 2020) ($170,000.00 awarded for pain and suffering), *Reed v. Sec'y of Health & Human Servs*., No. 16-343V, 2019 WL 1222925 (Fed. Cl. Spec. Mstr. Feb. 1, 2019) ($160,000.00 awarded for pain and suffering), and *S.C. v. Sec'y of Health & Human Servs.*, No. 19-341V. 2021 WL 2949763 (Fed. Cl. Spec. Mstr. June 14, 2021) ($160,000.00 awarded for pain and suffering).

Respondent, by contrast, submits that the lesser sum of $100,000.00 is appropriate for pain and suffering. Opp. at 29. Addressing the specific damages cited by Petitioner, Respondent argues that *Tumolo*, *Reed*, and *S.C*. involved more severe injuries and non-medical circumstances that justified higher pain and suffering awards. *Id*. Respondent cites to the *Shelton* case in support of his proposed award for pain and suffering. *Shelton v. Sec'y of Health & Human Servs*., No. 19-279V, 2021 WL 2550093 (Fed. Cl. Spec. Mstr. May 21, 2021) ($97,500.00 awarded for pain and suffering).

In this case, the record establishes that although Ms. Crawford experienced the onset of shoulder pain almost immediately after vaccination, the fact that she waited so long to seek medical treatment will have to be considered in calculating a pain and suffering award. Although the Program does not penalize a claimant for suffering with an injury for a period of time, the fact that a person delays treatment – especially while readily seeking *other* treatment for concurrent concerns – undermines the determination that the injury was so severe that it warrants a higher pain and suffering award. This is especially so when other cases, in which individuals readily seek treatment due to the unbearable nature of the pain in question, are evaluated.

Here, it is incontrovertible that Ms. Crawford did not seek medical treatment right

away. While she may have discussed her shoulder injury with her family and friends in the days and months after vaccination, she did not seek medical treatment until nearly four months later. Even considering Ms. Crawford's aversion to formal medical treatment and her general avoidance of doctors, it remains the case that a very serious and painful injury **will** impel an individual to seek treatment – and thus the failure to do so is more reflective of a less-serious injury than the claimant's personal proclivities with respect to medical care generally.

Thus, the facts specific to this case support a lower award than in the cases cited by Petitioner - *Tumolo, Reed, and S.C*. In *Tumolo*, a case decided by Special Master Dorsey, the petitioner reported her shoulder pain promptly, just 16 days after vaccination, and experienced severe pain for approximately nine months before she received her first steroid injection. She underwent a total of 14 PT sessions, four MRIs, two cortisone injections, and arthroscopic shoulder surgery. Her date of surgery was moved up due to her complaints of significant pain. In total, petitioner sought treatment for 20 months over a four-year period due to several gaps in treatment. *Id*. at * 3.

In *Reed*, the petitioner reported shoulder pain just 11 days post vaccination. *Reed*, 2019 WL 1222925, *3. She consistently reported significant pain for approximately six months until the time she underwent shoulder surgery. *Id*. at *15. She described her pain as "searing", "intense", "burning" and "throbbing," and she began seeing a pain management specialist. *Id*. The petitioner in the *Reed* case underwent treatment for two and half years, had two MRIs, a shoulder arthrogram, a steroid injection, NSAIDs, muscle relaxers, trigger point injections, Lidoderm patches, a course of PT, and she underwent surgery which she deemed as "failed." *Id*. at *7. And in *S.C*., the petitioner reported shoulder pain to her orthopedist just two weeks following vaccination. *S.C.,* 2021 WL 2949763, at *4. Petitioner rated her pain at an 8/10 at this time. *Id*. She underwent two MRIs, four steroid injections, a total of 95 PT sessions (30 sessions pre-surgery and 65 sessions post-surgery), arthroscopic surgery, and she consistently reported her pain as "significant" for more than four months. *Id*. The total duration of Petitioner's injury was 38 months, with an 18-month gap of treatment. *Id*. at *5.

Respondent proposes an award of $100,000.00, referencing one comparable case - *Shelton v. Sec'y of Health & Human Servs*. - where the petitioner delayed seeking treatment for her injury for nearly five months post vaccination. *Shelton,* 2021 WL 2550093, at *7. She then did not obtain any further treatment until over three months later at which time she was referred for diagnostic testing. *Id*. She subsequently underwent consistent treatment for approximately one year which consisted of 26 total PT sessions (both pre- and post-surgery), three steroid injections, one MRI, and arthroscopic surgery. *Id*. at * 8. Similar to Ms. Crawford, however, the petitioner in *Shelton* also had fluctuating levels of reported pain, and at times, the pain was rated fairly high, with some lower pain

levels, particularly following receipt of a steroid injection. *Id*. However, in just 14 months post-vaccination, the petitioner in *Shelton* had met all her goals and milestones and sought no further treatment. *Id*. Thus, her overall treatment course was much shorter than that of Ms. Crawford - although the record herein also establishes both a delay in initial treatment, followed by a lengthy period for most of 2018 in which she received almost wholly PT – with no increase in the intrusive nature of treatment until after the claim was filed.

At bottom, the amount I award reasonably takes into account the fact that Ms. Crawford experienced years of shoulder pain, underwent a significant amount of treatment (including surgery), and endured a fairly long treatment course, if intermittent. However, the four-month delay in seeing treatment must be factored into the award as it signifies a less severe injury than the petitioners in the cases cited by Ms. Crawford – and I also give weight to the twenty-month period in which treatment did not occur or was limited in scope. Thus, I find that the amount of $105,000.00 for pain and suffering is fair and appropriate. (I also award the full amount of the revised unreimbursed expenses since they are not disputed).

VIII. Conclusion

In view of the evidence of record, I find Petitioner is entitled to compensation. I also find that, for all of the reasons discussed above and based on consideration of the record as a whole, $105,000.00 represents a fair and appropriate amount of compensation for Ms. Crawford's actual pain and suffering. She is also awarded the full amount requested for her past unreimbursable medical expenses in the amount of $45.57. Petitioner is therefore awarded a total of $105,045.57.

I approve a Vaccine Program award in the requested amount set forth above to be made to Petitioner. In the absence of a motion for review filed pursuant to RCFC Appendix B, the Clerk of the Court is directed to enter judgment herewith.[12]

IT IS SO ORDERED.

s/Brian H. Corcoran
Brian H. Corcoran
Chief Special Master

[12] Pursuant to Vaccine Rule 11(a), the parties may expedite entry of judgment by each filing (either jointly or separately) a notice renouncing their right to seek review.